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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,331	07/09/2003	Stephen E. Terry	I-2-0409.1US	1330
24374	7590	05/24/2007		
VOLPE AND KOENIG, P.C. DEPT. ICC UNITED PLAZA, SUITE 1600 30 SOUTH 17TH STREET PHILADELPHIA, PA 19103			EXAMINER NGUYEN, TOAN D	
			ART UNIT 2616	PAPER NUMBER
			MAIL DATE 05/24/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/616,331	<b>Applicant(s)</b> TERRY ET AL.	
	<b>Examiner</b> Toan D. Nguyen	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 February 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 28-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 28-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/28/07</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 28-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. (US 2003/0016698) in view of Vayanos et al. (US 6,901,063).

For claims 28-34, Chang et al. disclose method for resetting MAC layer entity in a W-CDMA communication system using HSDPA comprising:

a processing device configured to receive a radio resource control (RRC) message associated with a high speed downlink shared channel (HS-DSCH) inter-Node B cell change (figure 9, page 1 paragraph [0011], and page 5, paragraph [0065]), when the radio resource control (RRC) message has an identifier indicating that a medium

access control high speed (MAC-hs) is to be reset (figure 9, reference step 911, page 5 paragraphs [0068]-[0071], and figure 18, reference step 1805, page 8 paragraph [0092]).

However, Chang et al. do not expressly disclose the processing device flushes a reordering buffer and after the flushing of the reordering buffer, the processing device has each acknowledge mode (AM) radio link control (RLC) entity mapped to the HS-DSCH generate a status report. In an analogous art, Vayanos et al. disclose the processing device flushes a reordering buffer (figure 4B, reference 462, col. 7 line 29)(col. 10 lines 51-52) and after the flushing of the reordering buffer, the processing device has each acknowledge mode (AM) radio link control (RLC) entity mapped to the HS-DSCH generate a status report (col. 8 lines 9-18).

Vayanos et al. disclose wherein when the RRC message has the identifier indicating that the MAC-hs is to be reset, the processing device flushes the MAC-hs H-ARQ processes prior to the processing device generating the status report (col. 7 lines 32-36, and col. 8 lines 9-18 as set forth in claim 29), wherein the UE configured to receive data blocks over an air interface (figure 1, col. 4 lines 25-35 as set forth in claim 30), wherein the UE configured to transmit ACKs and NAKs generated by the MAC-hs H-ARQ processes (col. 7 lines 32-36, and col. 8 lines 9-18 as set forth in claim 31), wherein the processing device prior to status report generation, generates an end of packet data unit indication for each reordering queue (col. 12 lines 40-44 as set forth in claim 32), and wherein for a last packet data unit for each reordering queue, the processing device produces a special indication prior to the generation of the status

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report (col. 12 lines 40-44 as set forth in claim 33), wherein when the MAC-hs confirms that all the packet data units have been processed, the MAC-hs sends a packet data unit status report to a radio link control (RLC) layer (col. 8 lines 59-64 as set forth in claim 34).

One skilled in the art would have recognized the processing device flushes a reordering buffer, and would have applied Vayanos et al.'s control channel in Chang et al.'s process of resetting the receiver MAC-hs by the receiver RLC. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Vayanos et al.'s data delivery in conjunction with a hybrid automatic retransmission mechanism in CDMA communication system in Chang et al.'s method for resetting MAC layer entity in a W-CDMA communication system using HSDPA with the motivation being to provide the HARQ Activity Scheme to be able to flush the packets to higher layers (col. 10 lines 51-52).

For claims 35-41, Chang et al. disclose method for resetting MAC layer entity in a W-CDMA communication system using HSDPA comprising:

a processing device configured to receive a radio resource control (RRC) message associated with a high speed downlink shared channel (HS-DSCH) inter-Node B cell change (figure 9, page 1 paragraph [0011], and page 5, paragraph [0065]);

a medium access control high speed (MAC-hs) configured to reset itself when the radio resource control (RRC) message has an identifier indicating that the MAC-hs is to be reset figure 9, reference step 911, page 5 paragraphs [0068]-[0071], and figure 18, reference step 1805, page 8 paragraph [0092]).

However, Chang et al. do not expressly disclose a reordering buffer configured to be flushed when the MAC-hs is reset; and each of a plurality of acknowledge mode (AM) radio link control (RLC) entities mapped to the HS-DSCH are configured to generate a status report when the MAC-hs is reset and after the reordering buffer is flushed. In an analogous art, Vayanos et al. disclose a reordering buffer (figure 4B, reference 462, col. 7 line 29) configured to be flushed (col. 10 lines 51-52) when the MAC-hs is reset (col. 10 lines 51-52); and each of a plurality of acknowledge mode (AM) radio link control (RLC) entities mapped to the HS-DSCH are configured to generate a status report when the MAC-hs is reset and after the reordering buffer is flushed (col. 8 lines 9-18).

Vayanos et al. disclose H-ARQ processes which are flushed when the RRC message has the identifier indicating that the MAC-hs is to be reset (col. 7 lines 32-36, and col. 10 lines 51-52 as set forth in claim 36), wherein the UE is configured to receive data blocks over an air interface (figure 1, col. 4 lines 25-35 as set forth in claim 37), H-ARQ processes configured to generate ACKs and NAKs; wherein the UE is configured to transmit the ACKs and NAKs over the air interface (figure 1, col. 4 lines 25-35 as set forth in claim 38), wherein the processing device prior to status report generation, generates an end of packet data unit indication for each reordering queue (col. 12 lines 40-44 as set forth in claim 39), wherein for a last packet data unit for each reordering queue, the processing device produces a special indication prior to the generation of the status report (col. 12 lines 40-44 as set forth in claim 40), and wherein when the MAC-hs confirms that all the packet data units have been processed, the MAC-hs sends a

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packet data unit status report to a radio link control (RLC) layer (col. 8 lines 59-64 as set forth in claim 41).

One skilled in the art would have recognized the reordering buffer configured to be flushed when the MAC-hs is reset, and would have applied Vayanos et al.'s control channel in Chang et al.'s process of resetting the receiver MAC-hs by the receiver RLC. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Vayanos et al.'s data delivery in conjunction with a hybrid automatic retransmission mechanism in CDMA communication system in Chang et al.'s method for resetting MAC layer entity in a W-CDMA communication system using HSDPA with the motivation being to provide the HARQ Activity Scheme to be able to flush the packets to higher layers (col. 10 lines 51-52).

For claims 42-48, Chang et al. disclose method for resetting MAC layer entity in a W-CDMA communication system using HSDPA comprising:

receiving a radio resource control (RRC) message associated with a high speed downlink shared channel (HS-DSCH) inter-Node B cell change (figure 9, page 1 paragraph [0011], and page 5, paragraph [0065]); and

when the radio resource control (RRC) message has an identifier indicating that a medium access control high speed (MAC-hs) is to be reset (figure 9, reference step 911, page 5 paragraphs [0068]-[0071], and figure 18, reference step 1805, page 8 paragraph [0092]).

However, Chang et al. do not expressly disclose a reordering buffer is flushed; and after the flushing of the reordering buffer, each acknowledge mode (AM) radio link

control (RLC) entity mapped to the HS-DSCH generates a status report. In an analogous art, Vayanos et al. disclose a reordering buffer (figure 4B, reference 462, col. 7 line 29) is flushed (col. 10 lines 51-52); and after the flushing of the reordering buffer, each acknowledge mode (AM) radio link control (RLC) entity mapped to the HS-DSCH generates a status report (col. 8 lines 9-18).

Vayanos et al. disclose report when the RRC message has the identifier indicating that the MAC-hs is to be reset, the MAC-hs H-ARQ processes are flushed prior to the processing device generating the status report (col. 7 lines 32-36, and col. 8 lines 9-18 as set forth in claim 43), receiving data blocks over an air interface (figure 1, col. 4 lines 25-35 as set forth in claim 44), transmitting ACKs and NAKs generated by the MAC-hs H-ARQ processes (col. 7 lines 32-36, and col. 8 lines 9-18 as set forth in claim 45), prior to status report generation, generating an end of packet data unit indication for each reordering queue (col. 12 lines 40-44 as set forth in claim 46), wherein for a last packet data unit for each reordering queue, producing a special indication prior to the generation of the status report (col. 12 lines 40-44 as set forth in claim 47), and wherein when the MAC-hs confirms that all the packet data units have been processed, the MAC-hs sends a packet data unit status report to a radio link control (RLC) layer (col. 8 lines 59-64 as set forth in claim 48).

One skilled in the art would have recognized the reordering buffer is flushed, and would have applied Vayanos et al.'s control channel in Chang et al.'s process of resetting the receiver MAC-hs by the receiver RLC. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use Vayanos et



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al.'s data delivery in conjunction with a hybrid automatic retransmission mechanism in CDMA communication system in Chang et al.'s method for resetting MAC layer entity in a W-CDMA communication system using HSDPA with the motivation being to provide the HARQ Activity Scheme to be able to flush the packets to higher layers (col. 10 lines 51-52).

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan D. Nguyen whose telephone number is 571-272-3153. The examiner can normally be reached on M-F (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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TN

  
HUY D. VU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600